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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,465	12/20/2001	Michael L. Needham	CM03848H	1563

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EXAMINER
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ZEWDU, MELESS NMN

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/027,465

**Applicant(s)**

NEEDHAM ET AL.

**Examiner**

Meless N Zewdu

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4, 5, 6</u> . | 6) <input type="checkbox"/> Other: ____.  |

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### **DETAILED ACTION**

1. This action is the first on the merit of the instant application.
2. Claims 1-21 are pending in this action.

### ***Information Disclosure Statement***

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. Furthermore, serial numbers for the related applications in the Cross-Reference section should be provided along with the tiles. In this case applicant provided only the tiles (may not have the SN at the time of filing), but need to be incorporated therein as required.

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 13- 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chinitz in view of Han (US 6,321,089 B1).

**As per claim 1:** a method for a CDMA-dispatch soft handoff comprising the steps of:

establishing a first outbound link for a dispatch call reads on '958 (see fig. 2, block 202; fig. 3, block 302; fig. 4, block 402; col. 5, lines 18-52).

transmitting the dispatch call via the first outbound link reads on '958 (see fig. 2, block 202; fig. 3, blocks 302; col. 4, lines 4-26; col. 3, lines 40-51; col. 4, lines 4-26).

establishing an inbound link with a mobile station (MS) for the dispatch call reads on '958 (see fig. 2, block 206; fig. 3, block 301; col. 1, lines 32-47; col. 3, lines 40-51; col. 5, lines 23-39; col. 5, line 66-col. 6, line 18). But, Han does not explicitly teach about a method wherein a base site is to initiate a soft handoff by determining, based on a signal quality of the inbound link, that the MS should begin a soft handoff; determining, at least one base site of a plurality of adjacent base sites for the MS to begin a soft handoff with and indicating to the MS an

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identity of the at least one base site and an identity of an outbound link at the at least one base site, as claimed by applicant. It is to noted that the features mentioned above are features of a base site initiated handoff. However, in a related field of endeavor, Han, teaches about a "Reverse Link Soft Handoff Method", wherein a reverse link traffic signal strength or reverse link pilot signal strength of a particular mobile station is measured at a serving base station and the result compared to a predetermined threshold, which if lower, is reported to a base station controller for facilitating a soft handoff (see col. 3, lines 6-35; col. 4, lines 21-63; claims). It is obvious that the identifications of the new traffic channels, the new/target base site and MS are transmitted to the appropriate entity at an appropriate time for a soft handoff to take place. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Chinitz' with the reverse soft handoff techniques of Han for the advantage of improving a reverse link communication quality dropped by a shadow effect, a corner effect, or a scattering effect (see col. 2, lines 57-65).

**As per claim 2:** the method wherein the step of determining at least one base site comprises the step of requesting at least one base site of a plurality of adjacent base sites to determine a signal quality of the inbound link as received at each of the at least one base station reads on '089 (see col. 3, lines 6-35).

**As per claim 3:** the method wherein the step of requesting to determine a signal quality comprises providing the at least one base site of the plurality of adjacent

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base sites with the long code of the MS reads on '958 (see col. 5, lines 40-52).

The PN includes the long code of a base sites and/or MSs.

**As per claim 4:** the method wherein the step of determining at least one base site comprises the steps of:

receiving from at least one base site of the plurality of adjacent base sites an indication of a signal quality of the inbound link reads on '089 (see col. 5, lines 6-35).

selecting an adjacent base site based on the at least one indication of a signal quality of the inbound link reads on '089 (see col. 5, lines 6-35).

**As per claim 5:** the method wherein the step of determining at least one base site comprises the steps of:

requesting support for a soft handoff from the adjacent base site reads on '089 (see col. 5, lines 16-17). Reporting, in the context of the prior art, is same as requesting.

receiving an indication of a second an indication of a second outbound link at the adjacent base site enabling the soft handoff reads on '089 (see col. 5, lines 18-35).

**As per claim 6:** the method wherein the inbound link comprises a low-rate inbound link used to communicate at least one of forward power control information and reverse power information reads on '958 (col. 5, lines 40-52; col. 6, lines 46-58).

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**As per claim 7:** the method wherein the first outbound link comprises a full-rate CDMA outbound traffic channel reads on '958 (see abstract; col. 6, lines 18-40; claim 1).

**As per claim 13:** the method wherein the step of indicating to the MS the identity of an outbound link at the at least one base site comprises transmitting to the MS a CDMA code used for an outbound link at the at least one base site reads on '958 (see col. 5, lines 18-52).

**As per claim 14:** a base site comprising:

a receiver reads on '958 (see fig. 1, elements 112 and 113; fig. 5; col. 4, lines 57-60).

a transmitter reads on '958 (see fig. 1, elements 112 and 113; fig. 5; col. 4, lines 57-60).

a controller, coupled to the receiver and the transmitter (see fig. 1, element 111; col. 4, lines 57-60).

adapted to establish a first outbound link for a dispatch, adapted to instruct

the transmitter to transmit the dispatch call via the first outbound link reads on '958 (see fig. 2, block 202; fig. 3, blocks 302; col. 3, lines 40-51; col. 4, lines 4-26).

adapted to establish an inbound link with a mobile station (MS) for the dispatch call using the receiver reads on '958 (see fig. 2, block 206; fig. 3, block 301; col. 1, lines 32-47; col. 3, lines 40-51; col. 5, lines 23-39; col. 5, line 66-col. 6, line 18). But, Han does not explicitly teach about a method wherein a base site

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is adapted to determine, based on a signal quality of the inbound link, that the MS should begin a soft handoff; adapted to determine at least one base site of a plurality of adjacent base sites for the MS to begin handoff with, and adapted to indicate to the MS using the transmitter an identity of the at least one base site and an identity of an outbound link at the at least one base site, as claimed by applicant. However, in a related field of endeavor, Han, teaches about a "Reverse Link Soft Handoff Method", wherein a reverse link traffic signal strength or reverse link pilot signal strength of a particular mobile station is measured/determined at a serving base station and the result compared to a predetermined threshold, which if lower, is reported to a base station controller for facilitating a soft handoff (see col. 3, lines 6-35; col. 4, lines 21-63; claims). It is obvious that the identifications of the new traffic channels, the new/target base site and MS are transmitted to the appropriate entity at an appropriate time for a soft handoff to take place. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Chinitz' with the reverse soft handoff techniques of Han for the advantage of improving a reverse link communication quality dropped by a shadow effect, a corner effect, or a scattering effect (see col. 2, lines 57-65).

**As per claim 15:** the feature of claim 15 is similar to the feature of claim 2.

Hence, claim 15 is rejected on the same ground and motivation as claim 2.

**As per claim 16:** the feature of claim 16 similar to the feature of claim 4. Hence, claim 16 is rejected on the same ground and motivation as claim 4.



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**As per claim 17:** the feature of claim 17 is similar to the feature of claim 5.

Hence, claim 17 is rejected on the same ground and motivation as claim 5.

**As per claim 18:** the base site wherein the inbound link comprises a low-rate inbound link used to communicate at least one of forward power control information and reverse power information reads on '958 (see col. 4, lines 3-26; col. 5, lines 18-39).

**As per claim 19:** the base station wherein the first outbound link comprises a full-rate outbound traffic channel reads on reads on '958 (see col. 6, lines 37-45).

Claims 8-12, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chinitz in view of Han as applied to claim 1 above, and further in view of McKenna et al. (McKenna (US 6,594,498 B1)).

**As per claim 8:** in Chinitz in view Han, it was shown that a base site initiated soft handoff for a dispatch communication using inbound and outbound communication channels wherein transmitting the identity of an outbound traffic channel and a target base site is obvious from the communication that took place between at least one mobile station and the plurality of base stations. But, Chinitz in view of Han does not explicitly teach about a method wherein the step of indicating comprises the step of signaling in-band, as claimed by applicant. However, in a related field of endeavor, McKenna teaches that in-band signaling could be used on a forward traffic channel (see col. 16, lines 14-17). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the above references with the teaching of McKenna for the advantage of conveying system information.

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**As per claim 20:** the feature of claim 20 is similar to the feature of claim 8.

Hence claim 20 is rejected on the same ground and motivation as claim 8.

**As per claim 9:** But, Chinitz in view of Han does not explicitly teach about the use of signaling/control indication via a paging channel, as claimed by applicant. However, in a related field of endeavor, McKenna teaches that a forward paging channel could be utilized in a cellular communication system (see title; abstract; col. 16, lines 14-17). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the above references for the advantage of providing initialization information for traffic channels.

**As per claim 10:** the feature of claim 10 is similar to that of claim 9, since the identities of at least one base site and an outbound link are required by the provisioning of initialization information for traffic channels. Hence, claim 10 is rejected on the same ground and motivation as claim 9.

**As per claim 21:** the feature of claim 21 is similar to the feature of claim 10. Hence, claim 21 is rejected on the same ground and motivation as claim 10.

**As per claim 11:** the feature of claim 11 is similar to the feature of claims 9 and 10. In addition to the explanation provided regarding claim 10, the identity of the MS would be required by the system of the prior art since, in CDMA reception of a signal by a targeted MS is based on the unique code of that MS. Hence, claim 11 is rejected on the same ground and motivation as claim 9.

**As per claim 12:** as explained above, the identity of a targeted MS is required by the system since signal reception is based on a unique identification code of

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MSs. The difference feature of claim 12, which is directed to a base site transmitting to the MS a CDMA code reads on '958 (see col. 5, lines 18-52).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meless N Zewdu whose telephone number is (703) 306-5418. The examiner can normally be reached on 8:30 am to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (703) 308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Meless Zewdu

*M. Z.*

Examiner

20 August 2004.

*W. Trost*

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